

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P2964/PCT B/HU		FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/003343	International filing date (day/month/year) 30.03.2004	Priority date (day/month/year) 04.04.2003	
International Patent Classification (IPC) or national classification and IPC			
Applicant WITTENSTEIN AG			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 10 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 7 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input checked="" type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 3-11 _____ as originally filed/furnished
- pages* 2, 2a _____ received by this Authority on 23.02.2005 with the letter of 22.02.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-19 _____ received by this Authority on 23.02.2005 with the letter of 22.02.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/4-4/4 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees the applicant has:
- ☐ restricted the claims.
 - ☒ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted the claims nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with.
 - ☒ not complied with for the following reasons:

See Supplemental Box

4. Consequently, this report has been established in respect of the following parts of the international application:

☒ all parts.

☐ the parts relating to claims Nos. _____

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1, 3-19	YES
	Claims	2	NO
Inventive step (IS)	Claims	1, 3-19	YES
	Claims	2	NO
Industrial applicability (IA)	Claims	1-19	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents listed in the international search report:

D1: US-A-4 384 493 (GRUENBAUM HEINRICH) 24 May 1983 (1983-05-24)

D5: US-A-5 763 969 (BUDZYNSKI RICHARD J ET AL) 9 June 1998 (1998-06-09)

D6: US-A-5 841 255 (CANADA RONALD G ET AL) 24 November 1998 (1998-11-24)

7. Document D1 describes an electromotor with an output shaft 4 and a housing 12, on which are provided a centring flange and a securing flange 3.

The subject matter of claim 1 differs from that prior art in that at least one strain sensor is associated with the housing and the at least one strain sensor is arranged in the vicinity of the securing flange, the at least one strain sensor being provided on the unaltered or practically unaltered housing and the at least one strain sensor being disposed in the vicinity of the

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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securing screw holes in the securing flange.

In the previously known motor, a load-sensing cell, not a strain sensor, is arranged parallel to the motor axis. In order for the load-sensing cell to function, the motor is specially structured, i.e. the motor as a whole is rotatably mounted on the securing flange. In contrast, according to the subject matter of claim 1 of the application, the strain sensor is disposed on the motor without any special provisions having to be made.

The subject matter of claim 1 is thus considered novel and inventive. The requirements of PCT Article 33(2) and (3) are satisfied.

8. INDEPENDENT CLAIM 2

The present application does not meet the requirements of PCT Article 33(1) because the subject matter of independent claim 2 lacks novelty (PCT Article 33(2)) and is not inventive.

Document D5 describes an electromotor with an output shaft 4 and a housing 12, on which are provided a centring flange and a securing flange (see figure 1).

Document D5 also indicates that display electronics are associated with the housing (see figure 1, control box 20), the display electronics

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

being connected to a sensor which is associated with the drive, it being possible to display and read in the display electronics drive-specific status parameters and limits (see D5, column 4, lines 23 to 39).

The subject matter of claim 2 also indicates that the status data generated in the display electronics can in addition be transmitted to an external evaluation device. Thus only the type of data is specified. This means that the data should be such as to be **transmittable**. This, however, is a property which is also satisfied by the data depicted on the display of the device in document D5. The wording of this feature does not specify the presence of a device for transmitting the data, only the type of data.

The subject matter of claim 2 thus lacks novelty. The requirements of PCT Article 33(2) are therefore not satisfied.

Even if the wording of claim 2 were to indicate that a data transmitting device were provided in the electromotor, such a combination of features as would be disclosed in claim 2 could not be considered inventive. Document D6 discloses a device in which motors are connected to a central data processing system via a wireless data link (see column 2, lines 46 to 59). A person skilled in the art could readily transfer such a transmission system to a motor according to D5,

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since this feature concerns simply the transmission of the displayed data, the features known from documents D5 and D6 not interacting in any particular way. What is concerned is merely the aggregation of known features. The requirements of PCT Article 33(3) would therefore not be satisfied with respect to independent claim 2.

9. DEPENDENT CLAIMS 3 - 19

Claims 3 - 19 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

10. Claim 1 is not clear owing to the definition of the housing, which should be unaltered or practically unaltered. Pursuant to PCT Article 6, the claims must be clear so that it can be recognised what is to be protected. Here, the problem also arises of being able to recognise what is an unaltered or practically unaltered housing.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box IV**Lack of unity of invention**

1. Claims 1 and 2 (submitted with the letter of 22 February 2005) are independent claims, since neither of them contains all the features of another claim (see PCT Rule 6.4).
2. Independent claims 1 and 2 do not meet the requirement for unity of invention (PCT Rule 13.1) for the following reasons:
3. Of the documents listed in the international search report, document D1 is the closest available prior art and discloses an electromotor with an input shaft 4 and a housing 1, on which is provided a centring flange and/or a securing flange 3 (see figure 1). In said known electromotor, a strain sensor 8 is also associated with the housing and the one strain sensor is arranged in the vicinity of the securing flange 3 (see figure 1), the one strain sensor being disposed in the vicinity of the securing screw holes in the securing flange (see figure 1, column 2, line 54 to column 3, line 2).
4. The subject matter of claim 1 differs from this known prior art in that the strain sensor is provided on the unaltered or practically unaltered

Supplemental Box

housing of the electromotor.

5. The current application addresses the problem of how to determine the torque in a motor.

None of the prior art documents indicates or suggests the above-mentioned feature to a person skilled in the art wishing to solve the problem of interest. Therefore, this feature in combination with the other features in claim 1 is considered inventive.

6. Claim 2 differs from claim 1 in that it does **not** contain the above-mentioned feature, but indicates that the electromotor is provided with display electronics for displaying operation-specific data and that the electromotor is provided with a wireless transmission device for transmitting status data.

The problem solved in claim 1 is that of devising a motor that has means for measuring torque. The problem solved in claim 2 is that of devising a motor that has means for displaying data. These two problems are independent of one another and are solved using different features.

The requirements for unity of invention (PCT Rule 13.1) are not satisfied, since there is nothing to link the special technical features of the stated claims 1 and 2 (PCT Rule 13.2).

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